2 Application Number 10/797,789
Response to Final Office Action Mailed 2/26/2007

List of all pending claims:

1. (Previously presented) A method for freeform fabrication of a solid three-dimensional structure, comprising:

dispensing at least one layer of support material onto a first substrate, the support material comprising a fusible crystal hydrate;

solidifying the at least one layer of support material;

dispensing at least one layer of build material onto a second substrate, the build material being other than water or a fusible, water-containing substance; and solidifying the at least one layer of build material.

2. (Canceled)

- 3. (Previously presented) The method of claim 1, wherein dispensing at least one layer of support material comprising a fusible crystal hydrate comprises dispensing at least one layer of support material comprising a fusible crystal hydrate selected from the group consisting of sodium sulfate decahydrate, sodium acetate trihydrate, sodium aluminum sulfate dodecahydrate, sodium carbonate decahydrate, sodium phosphate dodecahydrate, and potassium aluminum sulfate dodecahydrate.
- 4. (Original) The method of claim 1, wherein dispensing at least one layer of support material onto a first substrate comprises dispensing at least one layer of support material onto at least one of a build platform, a removable material, a previously solidified layer of build material, and a previously solidified layer of support material.
- 5. (Original) The method of claim 1, wherein dispensing at least one layer of support material onto a first substrate comprises dispensing at least one layer of support material from an inkjet print-head.
- 6. (Original) The method of claim 1, wherein dispensing at least one layer of support material onto a first substrate comprises extruding at least one layer of support material from a fused deposition modeling head.

7. (Original) The method of claim 1, wherein dispensing at least one layer of build material onto a second substrate comprises dispensing at least one layer of build material selected from the group consisting of waxes, polymers, pre-polymers and combinations thereof.

3

- 8. (Original) The method of claim 1, wherein dispensing at least one layer of build material onto a second substrate comprises dispensing at least one layer of build material onto at least one of a build platform, a removable material, a previously solidified layer of build material, and a previously solidified layer of support material.
- 9. (Original) The method of claim 1, wherein dispensing at least one layer of build material onto a second substrate comprises dispensing at least one layer of build material from an inkjet print-head.
- 10. (Original) The method of claim 1, wherein dispensing at least one layer of build material onto a second substrate comprises extruding at least one layer of build material from a fused deposition modeling head.
- 11. (Original) The method of claim 1, wherein dispensing at least one layer of support material onto a first substrate and dispensing at least one layer of build material onto a second substrate comprises dispensing at least one layer of support material and at least one layer of build material onto the same substrate.
- 12. (Original) The method of claim 1, wherein solidifying the at least one layer of support material comprises solidifying the at least one layer of support material by chemical curing, thermal curing, or exposure to a source of ultraviolet radiation.
- 13. (Original) The method of claim 1, wherein solidifying the at least one layer of build material comprises solidifying the at least one layer of build material by chemical curing, thermal curing, or exposure to a source of ultraviolet radiation.

Application Number 10/797,789 Response to Final Office Action Mailed 2/26/2007

14 (Original) The method of claim 1, further comprising accruing a plurality of layers of the build material successively bound to one another to form the solid three-dimensional object.

15 - 24. (Canceled)